Applicant: Nakagav ta U.S.S.N.: 09/051,6/0

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2. (Twice Amended) [The DNA sequence according to claim 1], An isolated DNA molecule having a nucleotide sequence comprising SEQ ID NO:1 and SEQ. ID

₩0:2;

wherein SEQ ID NO:1 comprises a first exon of an OCIF gene (residues 1173-1202 of SEQ ID NO:1), [and]

wherein SEQ ID NO:2 comprises a second exon of an OCIF gene (residues 130-498 of SEQ ID NO:2), a third exon of an OCIF gene (residues 4503-4694 of SEQ ID NO:2), a fourth exon of an OCIF gene (residues 6715-6939 of SEQ ID NO:2), and a fifth exon of an OCIF gene (residues 8668-9054 of SEQ ID NO:2), and

wherein said OOIF gene encodes a protein that inhibits differentiation or maturation of osteoclasts.

5. (Amended) [A] An isolated protein having an amino acid sequence

© comprising SEQ ID NO:3 and having a molecular weight [determined under reducing conditions] of about 60 KD,

wherein said molecular weight is determined by SDS-PAGE under reducing

5 conditions, and

b

wherein said protein inhibits differentiation or maturation of osteoclasts.

6. (Amended) A method for producing the protein of claim 5, the method comprising:

inserting a DNA [sequence] <u>molecule</u> into an [express] <u>expression</u> vector, the DNA [sequence] <u>molecule having [comprising]</u> a nucleotide sequence <u>comprising</u> [selected from the group consisting of] SEQ ID NO:1 and SEQ ID NO:2; [and]

transforming a host cell with the expression vector;

culturing the host cell such that the protein is expressed [inducing expression of the protein] by the expression vector, and

isolating the expressed protein,

whereby the protein is expressed in culture and isolated therefrom.

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MVX